TK1
.E495

Index to Volume XXIII

Illustrated articles are designated by an asterisk (*), editorials by a dagger (†), and industrials by two daggers (††).

Page

A

††*Absorber, Tungsten Shock.....435
Accounts, Undeveloped Uses of..109
††*Accumulator Installation..... 64
*Address by President of the Pacific Coast Gas Assn.....271
*Adjustable Meter Prover Connection, An 564
Advertising & Gas Exposition...358
Advertising Electricity 140
Air Compressors, Centrifugal....177
†Airing Boilers 515
Alcohol Engines 472
††*Allis-Chalmers Co. Office, Sales Room, etc 82
Allis-Chalmers Organization, Addition to 59
††Allis Chalmers Sales 221
††*Allis-Chalmers Co., Steam Turbine, Business of 104
*Alternating Currents, Generation and Application of 219
*Alternating Current Motors.....54
Aluminum Electric Wires.....233
American Street and Interurban Railway Assn, Denver Convention 314
*Application and Generation of Alternating Currents 219
*Application of Electric Motors to Industrial Service 52
††Approved Electrical Devices.372, 542
†Architect and the Engineer 213
††*Arc Lamp, Intensified 292
††*Arc Lighting Service, New Cut-Outs For 63
Asbestos 77
Atomic Theory, The New.....261
Automatic Telephone Exchange, German 376
*Auxiliary Steam Plant for Great Western Power Co.....575

B

Banquet of Pacific Coast Gas Assn 287
Banquet Portland N. A. S. E., Annual 570
††Benjamin Tungsten Fixtures, New 371
Boiler Compounds 433
†Boiler Efficiency, Improved.....312
Books Received .....
..36, 142, 237, 267, 324, 364, 390,492
*Bucket Spacing on Tangential Impulse Water Wheels 584
Building Lighting 81
†Business Easements 386
Business Methods, New 355

C

California State Association of Electrical Contractors, The...496
*Cascade Tunnel, The Electric System of the Great Northern Railway 21, 459
Catalogues, New.....
15, 39, 61, 84, 119, 144, 164, 186, 215, 237, 267, 286, 324, 343, 368, 371, 372, 388, 433, 455, 546, 572, 589
*Centrifugal Pump, A New High Pressure 508
Characteristics of Long Distance Telephone Lines 376

Page

*Chart, Daylight Lighting 581
*Chehalis Telephone Switchboard.233
China, Electrical Enterprises... 51
*Chinese Telephone Exchange, San Francisco's New.....448
††"Chloride Accumulator" For A. C. Regulation 456
††*Chloride Accumulator Installation 64
††*Circuit Breaker 167
††*Circuit Breakers on Lines of Southern Power Co.....592
Civil Service Examination..122, 388
Coal in Washington 108
Combustion of Smoky Fuels, The.568
Comparison of Telegraph Companies 187
Comparison of Tungsten and Gasoline Lighting 449
††*Compensarc 124, 237
Complaints, the Public's 308
*Conduit Electric Railway, A Novel 558
*Conduits, Hydraulic 171
††*Connectors, Mechanical 221
Consumers' Light & Power Plant.505
Conservation 158
Conservation & Commerce 92
*Conservation Charge an Excise Tax 113
†Conservation, Futility of.....117
Contractors 101
Contractors & The Central Stations, Co-operation between ... 91
††*Contactor Panel, A High Tension.550
*Convention, Holophane Co 103
Convention of the N. W. Electric Power Assn 163
Co-operation Between Contractor's & The Central Stations.... 91
*††Core Loss Voltmeter 239
†Corporation Baiting 313
Cost of Water Power 580
"Current Literature References". 60
††Curtis Turbine Used As Regulator416
††*Cut-Outs For Arc Lighting Service 63

D

Damage Claims—A Modern View.323
Damages to Telephone Companies By Building Through Established Leads 487
*Dam, Multiple Arch 582
*Daylight Lighting Chart 581
Denver Convention American Street and Interurban Railway Assn 314
Diary of An Up-to-date Man.....492
*Dispatching System of the Pacific Gas & Electric Co 89
Dissatisfied Consumers, Some Results of Personal Interviews With 303
††*Drying Table, The Wesel-Westinghouse Electric Matrix.....549

E

Education of Consumers, Methods Of 273
†Education Without the College..430
*Effective Gas Lighting 280
Electric Arc Illumination for Shops 594
Electric Automobile, The.....428
*Electric Drive in Sawmills.....419
††*Electric Heating Apparatus, Exhition of 292

Page

††*Electric Iron, The Utility.....497
†Electric Mining 341
††*Electric Mining Hoist With 500 Hp. Motor, Large.....392
*Electric Motors, Application of, to Industrial Service 52
*Electric Motors in Mine Hoisting, Modern Applications of 379
††Electric Pleasure Vehicle, Studebaker, The 347
Electric Power in Germany.....284
††*Electric Power Wagons 370
Electric Street-car Lines of Berlin 307
*Electric System of The Great Northern Railway Company at Cascade Tunnel, The 21, 459
†Electric Vehicle 235
Electric Vehicle Campaign of the Brooklyn Edison Co.....228
*Electric Vehicle as a Corrective For Poor Load Factor 225
*††Electric Vehicles at the Automobile Show 414
*††Electric Vehicle, Studebaker.....240
Electric Wires, Aluminum 233
†Electrical Advertising 140
Electrical Contractors, The California State Association of....496
†Electrical Development, Trend of.263
Electrical Development, the Trend In 257
Electrical Developments in Uruguay 112
Electrical Devices, Approved.....
.....384, 510, 572
*Electrical Engineers Banquet, Los Angeles Section of the A. I. E. E. 287
Electrical Enterprises in China.. 51
*††Electrical Equipment for Modern Laundries 413
*Electrical Equipment, Protection of 245
*Electrically Heated Household Appliances 329
††Electrically Heated Oil Tempering Bath 436
†Electricity in Irrigation.....117
*Electrical Jobbers at Seattle....343
Electrical Lunch Club Los Angeles 568
Electrical Ordinance, San Francisco's New 564
Electrical Smelting of Iron Ores.316
†Electricity in Mining 98
Electricity & Matter 256
Electricity On the Mauretania ..421
*Electricity in the Yakima Valley.108
Electrolysis 93, 481
*Emergency Service, of the Los Angeles Gas & Electric Corporation, The 327
†Engineer and the Architect 213
Engineering (illuminating) From a Central Station Standpoint..249
†Engineer In Politics, The.....475
†Engineering, Recognition of.....410
††Errata, Notice of.....520
†Ethics For the Illuminating Engineer 263
Examination for First-Class Steam Engineer 504
Examination for Junior Engineer Draftsman 505
Examination for Senior Mechanical Draftsman 557
*Excise Tax, Is the Conservation Charge An 113
*Exhaust Steam Turbine 590
††*Exhibition of Electric Heating Apparatus 292
*Experience Department Pacific Coast Gas Assn., Report of....378
Experiences 388

TK1
.E495

Index to Volume XXIII

Illustrated articles are designated by an asterisk (*), editorials by a dagger (†), and industrials by two daggers (††).

Page

A

††*Absorber, Tungsten Shock.....435
Accounts, Undeveloped Uses of..109
††*Accumulator Installation..... 64
*Address by President of the Pacific Coast Gas Assn.....271
*Adjustable Meter Prover Connection, An 564
Advertising & Gas Exposition...358
Advertising Electricity 140
Air Compressors, Centrifugal....177
†Airing Boilers 515
Alcohol Engines 472
††*Allis-Chalmers Co. Office, Sales Room, etc 82
Allis-Chalmers Organization, Addition to 59
††Allis Chalmers Sales 221
††*Allis-Chalmers Co., Steam Turbine, Business of 104
*Alternating Currents, Generation and Application of 219
*Alternating Current Motors.....54
Aluminum Electric Wires.....233
American Street and Interurban Railway Assn, Denver Convention 314
*Application and Generation of Alternating Currents 219
*Application of Electric Motors to Industrial Service 52
††Approved Electrical Devices.372, 542
†Architect and the Engineer 213
††*Arc Lamp, Intensified 292
††*Arc Lighting Service, New Cut-Outs For 63
Asbestos 77
Atomic Theory, The New.....261
Automatic Telephone Exchange, German 376
*Auxiliary Steam Plant for Great Western Power Co.....575

B

Banquet of Pacific Coast Gas Assn 287
Banquet Portland N. A. S. E., Annual 570
††Benjamin Tungsten Fixtures, New 371
Boiler Compounds 433
†Boiler Efficiency, Improved.....312
Books Received .....
..36, 142, 237, 267, 324, 364, 390,492
*Bucket Spacing on Tangential Impulse Water Wheels 584
Building Lighting 81
†Business Easements 386
Business Methods, New 355

C

California State Association of Electrical Contractors, The...496
*Cascade Tunnel, The Electric System of the Great Northern Railway 21, 459
Catalogues, New.....
15, 39, 61, 84, 119, 144, 164, 186, 215, 237, 267, 286, 324, 343, 368, 371, 372, 388, 433, 455, 546, 572, 589
*Centrifugal Pump, A New High Pressure 508
Characteristics of Long Distance Telephone Lines 376

Page

*Chart, Daylight Lighting 581
*Chehalis Telephone Switchboard.233
China, Electrical Enterprises... 51
*Chinese Telephone Exchange, San Francisco's New.....448
††"Chloride Accumulator" For A. C. Regulation 456
††*Chloride Accumulator Installation 64
††*Circuit Breaker 167
††*Circuit Breakers on Lines of Southern Power Co.....592
Civil Service Examination..122, 388
Coal in Washington 108
Combustion of Smoky Fuels, The.568
Comparison of Telegraph Companies 187
Comparison of Tungsten and Gasoline Lighting 449
††*Compensarc 124, 237
Complaints, the Public's 308
*Conduit Electric Railway, A Novel 558
*Conduits, Hydraulic 171
††*Connectors, Mechanical 221
Consumers' Light & Power Plant.505
Conservation 158
Conservation & Commerce 92
*Conservation Charge an Excise Tax 113
†Conservation, Futility of.....117
Contractors 101
Contractors & The Central Stations, Co-operation between ... 91
††*Contactor Panel, A High Tension.550
*Convention, Holophane Co 103
Convention of the N. W. Electric Power Assn 163
Co-operation Between Contractor's & The Central Stations.... 91
*††Core Loss Voltmeter 239
†Corporation Baiting 313
Cost of Water Power 580
"Current Literature References". 60
††Curtis Turbine Used As Regulator416
††*Cut-Outs For Arc Lighting Service 63

D

Damage Claims—A Modern View.323
Damages to Telephone Companies By Building Through Established Leads 487
*Dam, Multiple Arch 582
*Daylight Lighting Chart 581
Denver Convention American Street and Interurban Railway Assn 314
Diary of An Up-to-date Man.....492
*Dispatching System of the Pacific Gas & Electric Co 89
Dissatisfied Consumers, Some Results of Personal Interviews With 303
††*Drying Table, The Wesel-Westinghouse Electric Matrix.....549

E

Education of Consumers, Methods Of 273
†Education Without the College..430
*Effective Gas Lighting 280
Electric Arc Illumination for Shops 594
Electric Automobile, The.....428
*Electric Drive in Sawmills.....419
††*Electric Heating Apparatus, Exhition of 292

Page

††*Electric Iron, The Utility.....497
†Electric Mining 341
††*Electric Mining Hoist With 500 Hp. Motor, Large.....392
*Electric Motors, Application of, to Industrial Service 52
*Electric Motors in Mine Hoisting, Modern Applications of 379
††Electric Pleasure Vehicle, Studebaker, The 347
Electric Power in Germany.....284
††*Electric Power Wagons 370
Electric Street-car Lines of Berlin 307
*Electric System of The Great Northern Railway Company at Cascade Tunnel, The 21, 459
†Electric Vehicle 235
Electric Vehicle Campaign of the Brooklyn Edison Co.....228
*Electric Vehicle as a Corrective For Poor Load Factor 225
*††Electric Vehicles at the Automobile Show 414
*††Electric Vehicle, Studebaker.....240
Electric Wires, Aluminum 233
†Electrical Advertising 140
Electrical Contractors, The California State Association of....496
†Electrical Development, Trend of.263
Electrical Development, the Trend In 257
Electrical Developments in Uruguay 112
Electrical Devices, Approved.....
.....384, 510, 572
*Electrical Engineers Banquet, Los Angeles Section of the A. I. E. E. 287
Electrical Enterprises in China.. 51
*††Electrical Equipment for Modern Laundries 413
*Electrical Equipment, Protection of 245
*Electrically Heated Household Appliances 329
††Electrically Heated Oil Tempering Bath 436
†Electricity in Irrigation.....117
*Electrical Jobbers at Seattle....343
Electrical Lunch Club Los Angeles 568
Electrical Ordinance, San Francisco's New 564
Electrical Smelting of Iron Ores.316
†Electricity in Mining 98
Electricity & Matter 256
Electricity On the Mauretania ..421
*Electricity in the Yakima Valley.108
Electrolysis 93, 481
*Emergency Service, of the Los Angeles Gas & Electric Corporation, The 327
†Engineer and the Architect 213
Engineering (illuminating) From a Central Station Standpoint..249
†Engineer In Politics, The.....475
†Engineering, Recognition of.....410
††Errata, Notice of.....520
†Ethics For the Illuminating Engineer 263
Examination for First-Class Steam Engineer 504
Examination for Junior Engineer Draftsman 505
Examination for Senior Mechanical Draftsman 557
*Excise Tax, Is the Conservation Charge An 113
*Exhaust Steam Turbine 590
††*Exhibition of Electric Heating Apparatus 292
*Experience Department Pacific Coast Gas Assn., Report of....378
Experiences 388

Page

F

Ferro-Silicon, Danger From..... 77
†Financing Water Power 567
††Fire and a Quick Installation, A..520
*Fire Boats, San Francisco, The..504
†Fire Boats 514
*Follower Bolts and Their Cure...102
Francis-Pelton Turbine, At La Grange 390
††*Freight Locomotive for New York, New Haven and Hartford, Geared 344

G

Gas Collections, A Word About..284
*Gas Distribution in San Francisco275
††*Gas Electric Motor Car for the Third Avenue Railway Company, New York, A 456
††Gas-Electric Motor Cars for Southern Railway 519
††Gas Engines for Boosting Gas Pressure in Transmission Pipes, Novel Use of.....294
Gas Exposition, Means of Advertising 358
*Gas Lighting, Effective 280
*Gas Main, High-Pressure Submarine 561
*Gas Meter, New One-Diaphragm..563
Gas Water Heaters to Obtain Hot Water Instantaneously, Use of..562
*††Geared Freight Locomotive For New York, New Haven and Hartford Railroad 344
††General Electric Company Awards at A. Y. P. Exposition.....369
††*Gen. Electric Company's Exhibit at A. Y. P. Exposition 266
*††General Electric Company's Improved Type "H" Transformer.240
*Generation & Application of Alternating Currents 219
†Geologist, Work for the 567
German Automatic Telephone Exchange 376
Gift to Institute Library.....267
Governmental Hydro-electric Plants 404
Government Policy with Respect to Water-Power Sites 555
*††Grant Flaming Arc Lamps On The Spreckels' Building 416
*Great Northern Railway Company at Cascade Tunnel, The Electric System 21, 459
†Great Northern Three-Phase Electrification 69
*Great Western Power Co., Auxiliary Steam Plant for.....575
Great Western Power Co., Changes in the Organization..... 59

H

Handling Complaints 232
*Hanford Irrigation & Power Development 351
Head of Water, Definition 77
*High Pressure Centrifugal Pump, A New 508
*High-Pressure Submarine Gas Main 561
High Tension Transmission Lines, Some California Notes on.....424
††*High Tension Contactor Panel, A.550
†High Tension Troubles 367
History of the Telephone Booth..346
Hoists for Filling Purifier Boxes, An Improvement on 562
†Holiday Wiring Dangers.....514
*Holst B. C. Leaves San Francisco.103
*Home Tel. Co., of San Francisco, New System of 129
*Hume Lake Dam 398, 582
Hydro-Electric Matters at Seventeenth National Irrigation Congress 176
*Hydro-Electric Plant, The Tokyo.375
*Hydro-Electric Transmission, Limitations in 74

I

Illuminating Engineering From a Central Station Standpoint.....249
†Illuminating Engineer, Ethics For The 263
†Improved Lighting 213
*Improved Lighting and Modern Incandescent Lamps.....197
*Incandescent Lamps and Improved Lighting, Modern 197
*Independent Water Heater 564
Industrial Service Application of Electric Motors. Illustrated... 52
In Memoriam 311, 338
Iron Alloyed With Silicon.....115
Iron Ores on the Pacific Coast...593
Iron & Steel Industries of the Pacific Coast 316
†Irrigation By Electricity.....366
Irrigation Congress, Hydro-Electric Matters of 176
*Isolated Lighting Plant, the Storage Battery in the.....289
Isolated Power Plants 517

J

*Jobbers at Seattle, Electrical....343
*Joint Convention at Seattle, N. W. E. L. & P. Assn., Seattle Section A. I. E. E.....243
Journal Portraits.
Burkett, C. W.....264
DuBois, C. G. 109
Elder, R. B. 59
Elsasser, C. C. 182
Gunn, Arthur 236
Harris, D. E. 162
Heger, W. S. 214
Holst, B. C. 103
Jones, E. C. 118
Martin, D. C. 80
McMeen, S. G. 141
Meredith, Wynn 387
Paul, M. Downing 288
Pennoyer, C. H. 342
Poss, F. H. 101
Roylance, Leon St. D. 454

K

††K. & E. Log log Duplex Slide Rule 125
††*Kellogg Switchboard Equipment, Change in 144
††*Kimble Motors 394

L

†Law for the Engineer.....588
Leasing Of Public Oil Lands....512
†Licensing Engineers 180
†Life Hazard of Electricity.....452
*Life Hazard and Resuscitation in Electrical Engineering, The...439
Light & Power Plant, The Consumers 505
†Limitations 78
*Limitations in Hydro-Electric Transmission. Illustrated 74
Liquid Gas 57
*Load Dispatching System of the Pacific Gas & Electric Co..... 89
Load Factor and Power Factor, Difference Between 505
Long Distance Telephone Lines, Prominent Characteristics of..376
*Los Angeles Gas & Electric Corporation, The Emergency Service of 327
Los Angeles Rejuvenation 516
Los Angeles Section Am. Inst. of Electrical Engineers 100, 432
††Low Pressure Steam Turbines...267
†Low Pressure Steam Turbine, The367

M

Market Value of a Water-Power Plant 207
Massachusetts Street Railway Assn., Pacific Coast Tour of..412
††*Mechanical Connectors 221
Mechanical Engineers' Meeting.516
*Meter Prover Connection, An Adjustable 564
Methods of Education of Consumers 273
†Military Engineering 160
†Mining, Electricity in..... 98
††*Mining Hoist With 500 Horse Power Motor, Large Electric..392
*Mishawaka, Electric Lighting at.187
*Modern Applications of Electric Motors to Mine Hoisting 379
Modern Steam Plant 216
*Motors Alternating Current 54
††*Motor Cars for New Haven Suburban Service 371
*Multiple Arch Dam 582

N

*Napthalene Conditions in California, Some Notes On.....306
N. A. S. E. Club of San Francisco.289
Nat. Electrical Trades Assn. in San Farncisco 122
*Natural Gas as Real Property..178
††*Nernst Lamps For Instantaneous Lighting 104
†New Department, A 313
†New Engineering Societies.. 78
News Notes .....
20, 43, 66, 85, 104, 126, 145, 168, 188, 223, 241, 268, 294, 325, 348, 373, 39o, 417, 437, 457, 479, 501, ...521, 551, 573, 595
†N. W. Electric Light & Power Association 235
††Norfolk & Western Railroad Adopts Telephone Train Dispatching 456
Novak Revolving Diffuser for Centrifugal Pumps.....319
††Novel Use of Gas Engines for Boosting Gas Pressure in Transmission Pipes 294

O

Obituary—
Bliven, Mrs. H. M..... 182
Brayton, Albert P. 15
Davis, Frank L. 15
Schuyler, H. P. Captain....9, 182
Selig, Adolph L. 15
*Oil Gas Residual, And How to Handle It, The 336
††Oil Tempering Bath, Electrically Heated 436
*One-Diaphragm Gas Meter, New..563
† Operation of Short Line, 1200 Volt Railway 519
*Oregon Power Sites 553
Organization of Pacific States Electric Company 81
Outing, Electrical Men 119

P

Pacific Coast Electric Vehicle Assn, Questions and Answers.231
Pacific Coast Gas Assn 142
Pacific Coast Tour of Massachusetts Street Railway Assn....412
*Pacific Gas & Electric Co., Load Dispatching System of..... 89
†Pacific Gas Man, The 286
Pacific Metal Worker.....315
††*Parrott & Co., Electrical Dept. of.104
Patents .....
13, 33, 65, 123, 139, 165, 185, 211, 238, 265, 285, 322, 339, 365, 391, 409, 429, 451, 473, 500, 513, 548, ...565, 587
Pelton Francis Turbine at La Grange 390
*††Perkins' Building 240
Personal Interviews With Dissatisfied Consumers, Some Results of 303
Pole Damage by Woodpeckers..138
††*Pole Yard of Kellogg Switchboard and Supply Company....294
††*Portable Houses, Popular..... 64
Port Huron Decision, The.....274
Portland Section A. I. E. E.....387
*Portola Illumination 404
*Power Plant of El Tovar Hotel.. 47
*Protection of Electrical Equipment 245
†Power of Public Opinion, The..495
*Power Sites, Oregon 553
†President's Message 544
*Public Benefit From Water Power Development 297
††Publicity Association, Meeting of The Technical 518
††*Pump Governor 64
*Pumping Installation, A Novel..508

Q

Questions & Answers, Pacific Coast Electric Vehicle Assn....291

R

†Railway Electrification, Three-Phase 79
†Rate Uniformity 58
††*Regenerative Flame Arc Lamp...166
Rejuvenated Sons of Jove, Seventh Annual Meeting of.....314

Page

*Resuscitation in Electrical Engineering, The Life Hazard and 439, 517
††*Roan Type Gathering Locomotive.124
†Romance of Engineering, The..495
Rubber Situation in Brazil.....445

S

San Francisco Electrical Manufacturers, Organization of.....568
*San Francisco Fire Boats, The..504
*San Francisco Lamp Club, The..389
San Francisco's New Electrical Ordinance 564
San Francisco Section A. I. E. E... .....163, 412
*San Francisco's Water System..523
††Santa Fe Extends Telephone Train Dispatching 324
†Schussler, Hermann 544
††*Seaboard Air Line Adopts the Telephone For Train Dispatching 434
†Secrecy in Engineering 263
Seventh Annual Meeting of Rejuvenated Sons of Jove.....314
*††Sewing Machine Motors.....394
Shops, Electric Arc Illumination for 594
*††Sign of the Times, A.....324
Silicon Alloyed With Iron.....115
*††Single Phase Motor, R. I. Type..477
Slide Rule As a Substitute For the Wiring Table, The.....422
††*Slide Rule as a Wire Table, The..498
††Small Motors 323
Smoky Fuels, The Combustion of..568
Sonoma Valley System, Extension of 122
Speed Motor, Notes on the Variable 49
††Splicing Wrench & New Steel Tie267
Standardization of Electrical Mine Equipment 428
*Stanislaus Power Development..147
†Stanislaus High Tension Transmission 213
*Stanislaus Transmission Line....191
†Station Records.....494
Stationary Engineers, Announcement 547
*Steam Plant of Great Western Power Co.....575
Steam, Some Things About.....407
††*Steam Turbine Business of the Allis-Chalmers Co.....104
*Steam Turbine Exhaust 590
††Steam Turbines, Low Pressure...267
††*Steam Turbine, The Largest.....571
Steam Turbine, The Low Pressure 367
††Steel Tie and Splicing Wrench...267

Page

Steel Tower Supports vs. Wood Pole Supports 446
††*St. Francis Hotel Illumination..369
††Storage Battery Installation, A..294
*Storage Battery in the Isolated Lighting Plant 289
Street Car Mail Boxes.....279
*††Studebaker Branch Managers, Meeting of 393
††Studebaker Electric Pleasure Vehicle, The 347
*††Studebaker Electric Vehicle.....240
Sub-Marine Cables.....115

T

†Tactful Service.....286
*Tangential Impulse Water Wheels, Tariff On Lighting Carbons..... 62
††Technical Publicity Association, Meeting 415, 518
††*Telephone to Business Houses, Application of the Intercommunicating 185
*††Telephone Booth, History of the..346
††Telephone for Dispatching, Chicago and Northwestern Road Adopts 571
††Telephone For Train Dispatching, The New York, New Haven & Hartford Railroads Adopts.....520
††*Telephone Installation, Harmonic143
Telephone Newspaper, A 424
††*Telephone For Train Dispatching, Seaboard Air Line Adopts The.434
††*Terminal Wrench 345
†Three-Phase Railway Electrification 79
Three-Phase Electrification, Great Northern 69
*Tokyo Hydro-Electric Plant, The.375
Trade Notes ..... 16, 38, 61, 101, 119, 142, 164, 186, 222, 237, 264, 267, 288, 321, 324, 343, 368, 376, 389, 412, 432, 436, ...455, 496, 520, 456, 568, 589
*††Transformers, Largest 478
††*Transformer for Bell Circuits....594
*††Transformer, General Electric Improved Type 240
†Transformer Regulation.....475
*Transformer Regulation, Some Phases of 467, 488, 517, 543
*Transmission Line, Stanislaus..191
Trend in Electrical Development..257
†Trend of Electrical Development.263
Tungsten and Gasoline Lighting, Comparison of 449
††*Tungsten Lamps, 200-250 Volt...125
Tungsten Lamp and Its Relations to the Central Station, The....506
††*Tungsten Shock Absorber 435
*Turbine, Exhaust Steam.....590
††*Twenty-four Hour Service at Appleton, Minn 550

Page

U

*Underground Electric Construction 333
Underground Water Supply in So. California 208
United Metal Trades Assn. at A. Y. P. Exposition 317
Uruguay, Electrical Developments of 112
††*Utility Electric Iron, The.....497

V

Ventilating Fans for Motors....466
*††Voltmeter, Core Loss.....239

W

*Water Heater, Independent 564
Water Power, Cost of.....580
Bucket Spacing on.....584
*Water Power Development, Public Benefit From.....297
Water Power Monopoly, Impossibility of a 159
Water-Power Securities, The Value of 556
Water-Power Sites, Government Policy With Respect to.....555
†Water Power Trust, Alleged The.181
*Water Wheels, Bucket Spacing on 584
*Wenatchee Electric Co..... 87
††*Wesel - Westinghouse Electric Matrix Drying Table, The.....549
††Western ElectricReport for First Half of Fiscal Year..... 63
††Westinghouse Electric and Manufacturing Company's New Repair Department, The.....572
Westinghouse Lamp Salesmen, Meeting of 60
††*Westinghouse Type C Three-Phase Transformers 518
†Wire Guages 366
†Wiring Dangers, Holiday.....514
Wiring Table, The Slide Rule as a Substitute For The.....422
Wireless Detector 249
Wood Pole Supports vs. Steel Tower Supports 446

Y

Yale and Towne Works Equivalent to a College.....214

Authors' Index

Page

Baurhyte, Wm.....273
Barrett, Charles L.....308
Berry, S. L.....584
Cline, W. B.....272
Clements, John 303
Coghlan, Jno. P.....353
Cooley, George 422
Copeland, Clem A.....439
Charters, S. B., Jr.....467
Clarke, R. L.....561
Cuthbertson, G. W.....517
Dyer, G. S..... 1
De Remer, J. G.....590
Downing, P. M..... 89
Domonoske, A. B.....376
Durand, W. F.....407
Davis, W. J., Jr.....416
Doherty, Henry L.....556
Eames, Hayden 370
Eastwood, John S.....398
Fenkhausen, R. H..... 10
Finkle, F. C.....208
Foster, S. L.....424, 446
Grunsky, C. E.....582

Page

Guldemeister, O. P..... 23
Halloran, A. H..... 69
Henning, A. P.....564
Holberton, G. C..... 91
Hamilton, W. M.....249
Hall, Leon M.....379
Hurt, C. H.....564
Hutchinson, Cary T.....460
Hillebrand, W. A.....467
Jewett, F. B..... 28
Jorgensen, L. R.....171
Jones, A. G.....329
Keyes, Homer F.....284
Kreisinger, Harry 569
Kuster, Jno. D.....358
Lincoln, P. M.....245
Lillard, O. W.....289
Lisberger, S. J.....333
Lamme, W. F.....517
Millard, F. C.....562
Miller, Elam 26
McMeen, S. G.....129
Morgan, W. R.....275
Martin, Jno.....297

Page

Merrill, George 506
Parsons, E. B.....52, 219
Pinchot, G.....158
Petch, T. D.....355
Ray, Walter T.....569
Read, E. W.....178, 487
Remschel, C.....419
Roylance, L. St. D.....498
Schade, Wm.....563
Short, F. H.....113, 159
Sherwood, E. L.....197
Scott, Chas. F.....257
Sherwood, Grover 306
Schussler, Hermann 523
Thompson, R. J.....280
Vance, C. S.....328
Valentine, R. P.....336, 378
Watts, R. L..... 47
Wight, C. L.....562
Wood, R. J. C..... 74
Whitaker, J. H.....232
Woods, B. M.....376
Williams, Winfield S.....481